

DISCUSSION OF THE AMENDMENTS

Claims 1 and 8-17 were previously presented.

Claims 2-7 are original.

Claim 18 is new.

Upon entry of the amendment, claims 1-18 will be active.

New claim 18 is supported by claim 14 as previously presented.

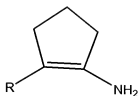
No new matter has been added.

REMARKS

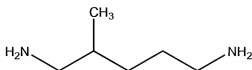
Applicants would like to thank Examiner Listvoyb for indicating that claim 17 would be allowable if rewritten in independent form including all of the limitations of the base claim any intervening claims.

The Office has rejected claim 7 under 35 U.S.C. §112, second paragraph. In addition, the Office has rejected claims 1-3 and 8-15 under 35 U.S.C. §103(a) over the combination of Shyu (U.S. Patent No. 4,739,035), Mohrschladt (U.S. Patent No. 6,569,988), Lambert (U.S. Patent No. 3,859,329) and Moore et al. (U.S. Patent No. 3,950,229). The Office has also rejected claims 1 and 7 under 35 U.S.C. §102(b) over Ogo (U.S. 6,117,942). Finally the Office has rejected claims 1, 4-6 and 14-17 under 35 U.S.C. §102(b) over Winterling et al. (U.S. Patent No. 6,958,381 and WO 02/42357).

The present disclosure involves a polyamide whose main chain comprises chemically bound 1-amino-2-R-cyclopent-1-ene. The group R is a functional group capable of combining with an amino group to form an amide group. Applicants note that the 1-amino-2-R-cyclopent-1-ene has the following structure:



In another embodiment, the main chain of the polyamide may also include 2-methyl-1,5-diaminopentane which has the following structure:



The rejection of claim 7 under 35 U.S.C. §112, second paragraph is respectfully traversed.

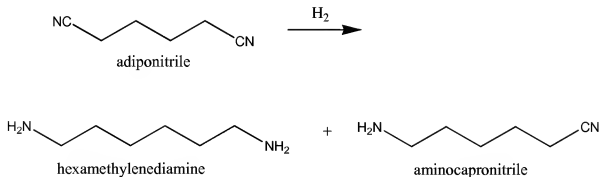
Claim 7 involves an embodiment with a polyamide whose main chain comprises chemically bound 1-amino-2-R-cyclopent-1-ene and comprises chemically bound 2-methyl-1,5-diaminopentane. Applicants submit that the embodiment containing both of these distinct compounds is supported on page 1, lines 5-8 of the specification which describes mixtures of these compounds. Accordingly, Applicants respectfully request that the Office withdraw the rejection of claim 7 under 35 U.S.C. §112, second paragraph.

The rejection of claims 1-3 and 8-15 under 35 U.S.C. §103(a) over Shyu, Mohrschladt, Lambert and Moore is respectfully traversed.

Shyu describes a process for the manufacture of polyamide from diamines and dinitriles. Applicants can find no reference to the use of 6-aminocapronitrile in Shyu as stated by the Office on page 2 of the Office Action.

Mohrschladt describes a process for producing polyamides from hexamethylenediamine and aminocapronitrile and a dicarboxylic acid. The hexamethylenediamine and aminocapronitrile are produced from the hydrogenation of adiponitrile.

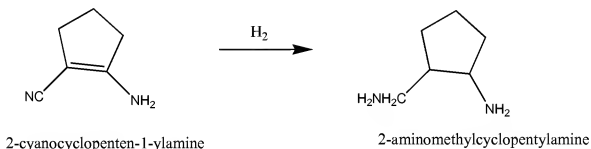
The hydrogenation process is as follows:



Lambert and Moore describe the purification of adiponitrile containing 2-cyanocyclopenten-1-ylamine as an impurity. The Office concludes that 6-aminocapronitrile always contains cyanocyclopenten-1-ylamine based on Lambert and Moore.

Applicants do not make any comments with regard to whether adiponitrile always contains 2-cyanocyclopenten-1-ylamine; however, adiponitrile is not 6-aminocapronitrile.

Mohrshladt describes making aminocapronitrile by hydrogenating adiponitrile. In addition, Lambert discloses that hydrogenation of adiponitrile in the presence of 2-cyanocyclopenten-1-ylamine gives 2-aminomethylcyclopentylamine (see column 1, lines 5-35 of Lambert). This reaction is as follows:



Accordingly, the aminocapronitrile used in Mohrshladt would contain 2-aminomethylcyclopentylamine not 2-cyanocyclopenten-1-ylamine assuming that 2-cyanocyclopenten-1-ylamine were present in the adiponitrile prior to hydrogenation to form the aminocapronitrile.

Therefore, the aminocapronitrile in Mohrshladt would not necessarily contain 1-amino-2-R cyclopent-1-ene. Because even if the 2-cyanocyclopenten-1-ylamine were present in the adiponitrile it would have been hydrogenated to the aminomethylcyclopentylamine during the hydrogenation of adiponitrile. Because the combination of Shyu, Mohrshladt, Lambert and Moore do not teach or suggest all the recitations of the claimed composition, the composition would not have been obvious over the references. As such, Applicants respectfully request that the Office withdraw the rejection of claims 1-3 and 8-15 under 35 U.S.C. §103(a).

The rejection of claims 1 and 7 under 35 U.S.C. §102(b) over Ogo is respectfully traversed.

Ogo describes a semiaromatic polyamide resin. However, Ogo does not teach or suggest a polyamide whose main chain comprises chemically bound 1-amino-2-R-cyclopent-1-ene (as recited in claim 1, see structure above). Therefore, the claimed composition would not have been anticipated over Ogo, and therefore, Applicants respectfully request that the Office withdraw the rejection of claims 1 and 7 under 35 U.S.C. §102(b).

The rejection of claims 1, 4-6 and 14-17 under 35 U.S.C. §102(b) over Winterling is respectfully traversed.

Winterling describes a process for preparing polyamides with various monomers. The Office notes that on column 5, line 1, Winterling recites C₅-C₈ cycloalkane carboxylic acids such as cyclopentanecarboxylic acid as one possible monomer. However, cyclopentane-carboxylic acid is not 1-amino-2-R-cyclopentene-1-ene. Winterling describes a saturated cycloalkane compound not an unsaturated cyclopentene compound. Therefore, Winterling does not teach or suggest the claimed composition; and accordingly the claimed composition would not have been anticipated over Winterling. As such, Applicants respectfully request that the Office withdraw the rejection of claims 1, 4-6 and 14-17 under 35 U.S.C. §102(b) over Winterling.

In light of the above remarks, applicant believes the pending application is in condition for allowance. Favorable reconsideration is respectfully requested.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00162-US1 from which the undersigned is authorized to draw.

Dated: September 12, 2007

Respectfully submitted,
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